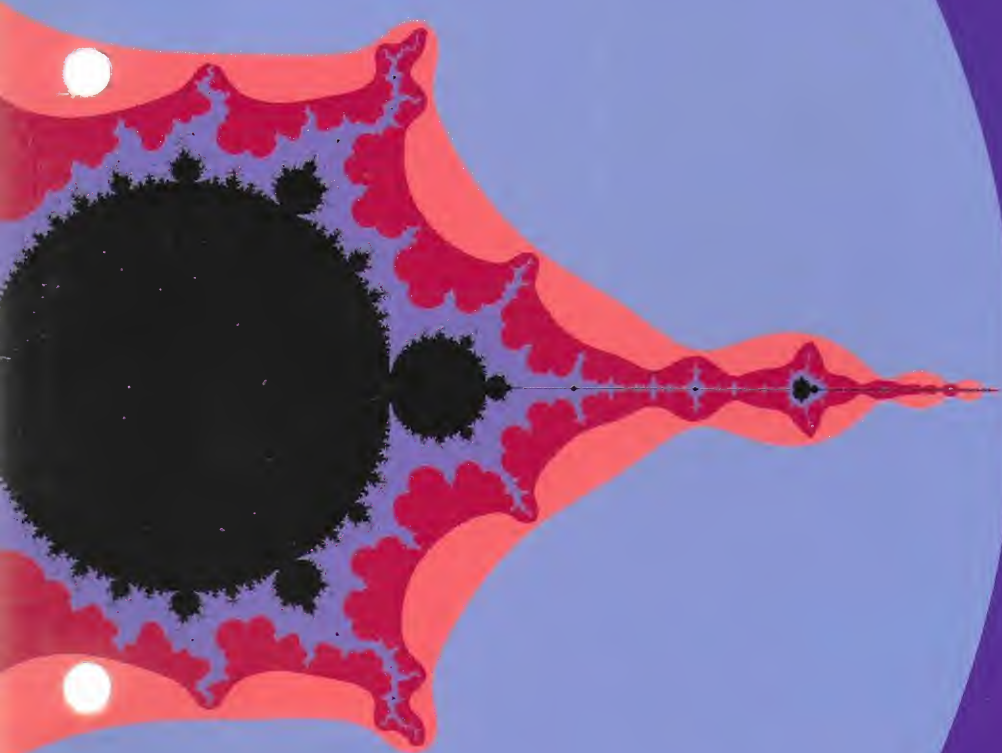




The Open  
University

**MSc in Mathematics  
Prospectus**

2003/2004



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This prospectus has been prepared by the Marketing and Sales Development Group and Student Services Communications Team of The Open University.

While every effort is made to ensure accuracy, the information in this prospectus may change in the light of altered regulations or policy because of financial or other constraints.

Please note that some telephone calls to the University will be monitored to ensure that we have carried out your instructions correctly and to help us improve our service through staff training.

Front cover image kindly supplied by Lesley Kane.

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[www.open.ac.uk](http://www.open.ac.uk)

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Thank you for your interest in The Open University MSc in Mathematics. We hope that our taught higher degree will meet your needs and expectations.

The postgraduate degree of MSc in Mathematics offers you an opportunity to study in depth a variety of advanced topics in both pure and applied mathematics, described in this prospectus.

The Open University's unrivalled experience in supported open learning means that we can offer you a flexible approach to learning that will allow you to fit your studies alongside your professional and domestic commitments. Our tutoring arrangements mean that even if you change your job or move house your studies can continue uninterrupted. One of the great success stories of British education, The Open University is the largest and most innovative university in the UK, with a worldwide reputation for the quality of its courses and the effectiveness of its teaching methods. Since the University received its Royal Charter in 1969 more than two and a half million people have studied with us for degrees, for professional purposes or for personal development. We look forward to receiving your application for our next study year, which begins in February 2004. The closing date for registration is 31 October 2003.



# The Master of Science in Mathematics degree

## The MSc in Mathematics

The MSc in Mathematics is designed for students who want to continue their studies by delving more deeply into particular aspects of pure and applied mathematics. We hope that the elements of the programme will be sufficiently varied to interest mathematically inclined scientists and engineers as well as mathematicians. Courses are based on guided reading of one set textbook.

## Entry requirements

You should have or expect to gain at least an upper second-class honours in a mathematics degree or in a degree with a high mathematical content. In exceptional circumstances applicants without this qualification will be considered, although non-graduates will not normally be admitted.

We must emphasize that the courses are mathematically demanding, as you would expect at this level, and that is why a good first degree in mathematics is expected. If you have not thoroughly mastered the essential elements of an undergraduate programme in mathematics you are most unlikely to succeed at postgraduate level.

## Structure of the degree

The degree is awarded when you have successfully completed six courses. Each course in the programme is worth 30 credit points and you need 180 points for the MSc in Mathematics. You should, normally, complete the degree within six years at the most, progressing by at least one or two courses each year. New students will be offered a place on one course only.

If you are unable to study in a particular year (because of a change of employment or personal circumstances, for example) or want to break off your MSc work temporarily but remain in the programme, you can ask permission to suspend your studies. Each case will be considered individually.

The study year for all MSc in Mathematics courses is from February to October.

## Course order

In principle the courses can be studied in any order, except that M829 *Analytic number theory II* can be taken only after passing M823 *Analytic number theory I*.

Nevertheless, since the courses vary in difficulty, there are some that we recommend choosing as your first course. If you are primarily interested in pure mathematics, we suggest starting the MSc programme with either M823 *Analytic number theory I* or M835 *Fractal geometry*. If you are primarily interested in applied mathematics, we suggest starting with M821 *Nonlinear ordinary differential equations*.

M833 *Advanced mathematical methods* teaches the use of Maple, a programming language that is designed for symbolic processing and has powerful numerical and graphical capabilities. This software is useful in many areas of mathematics, including many of the MSc courses. If you have no experience of programming you may find that this part of the course demands considerable effort and time and we suggest that you do not take this as your first MSc course.

These recommendations are offered only as advice and, except for the order of M823 and M829, are not mandatory.

## Open University study

The Open University's methods allow you to choose your time and place of study and, to a large extent, the pace at which you work. You can adapt your study pattern to meet the changing needs of your domestic and working life and our tutoring arrangements mean that your studies are not interrupted even if you change your job or move house.

## Course materials

The specially designed material, which you will receive before you begin each course, includes course notes for the set book to help you pace your reading, to offer further explanation where we feel it is necessary, to suggest exercises and give their solutions. There is also an assignment booklet and a specimen examination paper with solutions.

The set book for M826 can be obtained only from the MSc course manager, to whom you should address any questions:

Mr Nigel Vincent  
Faculty of Mathematics and Computing  
The Open University  
Walton Hall  
Milton Keynes  
MK7 6AA  
Tel. 01908 652025

All other set books can be obtained from good bookshops. Eddington Hook has undertaken to stock sufficient copies of all set books for the MSc in Mathematics programme. The telephone number is 01892 517439 and the freephone order line is 0800 0182 799.

The software for M833 is available from the course manager (at the address below, left) after you have paid the course fee and will cost an additional £40, which should not be included in the fee payment.

## Tuition

Supported open learning is the main means of teaching in The Open University. Tutors help you to understand and learn from the course by written comments on your assignments as well as by assessing them. These comments are likely to provide the most important advice on maintaining or improving your progress on the course. Your tutor will be available as your usual point of contact if you have questions or difficulties; there is an answering service twenty-four hours a day. The Mathematics and Computing Faculty staff tutors in each region (see page 21) will also be able to offer advice.

## Assessment

On each course your academic performance will be measured by both continuous assessment and a three-hour written examination. The continuous assessment consists of four assignments set at intervals during the course. These marks are combined with those awarded for the examination to calculate your final result, but you should bear in mind that to be sure of achieving a pass on each course you must attain at least 40 in both the continuous assessment and the examination.

## Credit for courses outside the programme

If you have passed both M860 *Software engineering* and M861 *Computer architecture and operating systems*, which were presented as part of the University's Computing for Commerce and Industry programme, you can count them *together* as one of the six courses you need for the MSc in Mathematics.

If you have a pass in M431 *The Lebesgue integral* and have not counted it towards a BA or BSc degree, you can count it as one course towards the MSc in Mathematics.



## MSc courses

**M821 *Nonlinear ordinary differential equations***

**M823 *Analytic number theory I***

**M826 *Functional analysis***

**M828 *Applied complex variables***

**M829 *Analytic number theory II***

**M832 *Approximation theory***

**M833 *Advanced mathematical methods***

**M835 *Fractal geometry***

**M836 *Coding theory***

**M841 *The Lebesgue integral***

- M829 *Analytic number theory II* is not available to new students registering in 2004.
- M826 *Functional analysis* is presented in 2004; it is available in even-numbered years only.
- M832 *Approximation theory* is not presented in 2004; it is available in odd-numbered years only.
- M841 *The Lebesgue integral* is not presented in 2004; it is available in odd-numbered years only.

We shall continue to offer as many of these courses as possible, but because staff may not be available to present them and set books may be out of print, we cannot guarantee the continuance of any course.

With the exception of M829, the courses can be studied in any order but see advice on course order on page 2.

## Nonlinear ordinary differential equations

UK Fee £300  
30 points

**M821**

Nonlinear ordinary differential equations arise in a wide variety of circumstances: a simple pendulum, oscillations in electrical circuits, oscillations of mechanical structures, molecular vibrations, the motion of particles in accelerators, planetary motion, the effects of strong electromagnetic fields of atoms and molecules. So this course should be of particular interest to scientists and engineers.

The course is based on the set book *Nonlinear Ordinary Differential Equations* by D. W. Jordan and P. Smith (1999, third edition, Oxford University Press). It is an introduction to some of the basic theory and to the simpler approximation schemes. It deals mainly with systems that have two degrees of freedom and it can be divided

into three parts. First, the geometric aspects of the two-dimensional phase space are discussed; we show why the fixed points are important and how they can be classified and the notion of a limit cycle is introduced. Then we develop schemes by which the solutions of autonomous and non-autonomous equations can be approximated and so begin to understand how the solutions behave. In this section there is some emphasis on periodically forced nonlinear oscillators and on nonlinear oscillators with periodically time-varying parameters leading to parametric resonances. Finally, the stability of these solutions is discussed and various tests for stability are obtained.

### *Assumed knowledge*

You should have a good degree in mathematics, theoretical physics or engineering. You should have taken a good first course in calculus and have a sound knowledge of the theory of ordinary linear differential equations with constant coefficients; an adequate preparation for this material would be The Open University undergraduate-level courses MST207 *Mathematical methods, models and modelling* and M203 *Introduction to pure mathematics* (or the discontinued courses MST204, M201 and M231).

## M823 M829

UK Fee £300  
30 points  
(per course)

## Analytic number theory I Analytic number theory II

Number theory has its roots in ancient history. The Greeks were the first to classify the integers and it is to them that the first systematic study of the properties of the numbers is attributed. But after about 250 AD the subject stagnated until the seventeenth century. Since then there has been intensive development using ideas from many branches of mathematics. The field of number theory is now vast and many of the problems in it are difficult to understand. And, in spite of the maturity of the subject, many problems that are easy to state and to understand still exist, for example:

- Is there an even number  $> 2$  that is not the sum of two primes?
- Are there infinitely many 'twin primes' (primes differing by 2) such as (3, 5) or (101, 103)?
- Are there infinitely many primes of the form  $n^2 + 1$ ?
- Does there always exist a prime between  $n^2$  and  $(n + 1)^2$  for every integer  $n \geq 1$ ?

In these courses we study number theory using techniques from analysis, in particular the convergence of series and the calculus of residues. Among the results proved are:

- Dirichlet's theorem on primes in an arithmetical progression, which states that there are infinitely many primes in a progression such as 1, 5, 9, 13, 17...
- The law of quadratic reciprocity, which compares the solubility of the congruences  $x^2 \equiv p \pmod{q}$  and  $x^2 \equiv q \pmod{p}$ , where  $p$  and  $q$  are primes.
- The prime number theorem, which estimates the number of primes up to a given value  $x$ .

These courses are based on selected readings from the set book *Introduction to Analytic Number Theory* by T. M. Apostol (1986, fourth edition, Springer-Verlag).

The first course, M823, covers most of the material in the first seven chapters and part of chapter nine. The second course, M829, is based on chapter eight, the rest of chapter nine and most of chapters ten to fourteen. M829 is not available to new students registering to begin study in 2004.

### Assumed knowledge

For M823, you should have taken a good first course in real analysis. For M829, you should also have taken a good first course in complex analysis – in particular, the calculus of residues. An adequate preparation would be The Open University undergraduate-level courses M203 *Introduction to pure mathematics* and M337 *Complex analysis* (or the discontinued courses M231 and M332). A knowledge of elementary number theory as given, for example, in M381 *Number theory and mathematical logic* (or the discontinued courses M382 or M383) would be an advantage but is not necessary. You must pass M823 before you attempt M829.

## M826

UK Fee £300  
30 points

## Functional analysis

Available in 2004 – presented in even-numbered years only

One of the characteristics of twentieth-century mathematics is the emphasis placed on classes of functions as a whole, rather than special properties of individual functions. Functions are considered as elements of a set. In a natural way, these sets can usually be given the additional structure of a linear space and a topological space. The interplay of these two structures is what gives the subject its characteristic flavour.

Along with the set of functions, it is useful to consider sets of mappings from the set into various other sets. In particular, linear mappings onto the set itself (operators) and into the complex numbers (linear functionals) are important.

This course does not consider any of the many applications of the theory, which include approximations, optimization, classical and quantum mechanics, statistical mechanics, infinite group representations and harmonic analysis, partial differential equations.

The course is based on all but the last chapter of the book *Elements of Functional Analysis* by I. J. Maddox, published by Cambridge University Press. This is out of print, but reprints are available, at a small charge, from the MSc course manager (address on page 2).

### Assumed knowledge

You must have a good working knowledge of the following: convergence, continuity, complex functions and Cauchy's theorem, elementary set theory and mappings, topological spaces, particularly metric spaces, compactness, vector spaces and linear maps between them. An adequate preparation would be The Open University undergraduate-level courses M203 *Introduction to pure mathematics* and M337 *Complex analysis* (or the discontinued courses M332 and M386).



## Applied complex variables

UK Fee £300  
30 points

M828

Complex variable theory pervades a wide variety of important subjects and this course teaches some topics that are of use in the theoretical sciences and of interest in their own right. The course deals with subjects that seem to be a natural outgrowth of the study of analytical functions of one complex variable, for example potential theory, the theory of ordinary linear differential equations, Fourier and Laplace transforms and asymptotic expansions.

Because the topics covered are used routinely in the sciences, we hope that this course will appeal to scientists and engineers as well as to mathematicians. The course is based on the set book *Applied Complex Variables* by J. W. Dettman (1984, reprinted by Dover).

### Assumed knowledge

You should have taken good first courses in real analysis and complex analysis. An adequate preparation would be The Open University undergraduate-level courses M203 *Introduction to pure mathematics* and M337 *Complex analysis* (or the discontinued courses M231 and M332). Part I of the set book covers the prerequisite material, a very useful feature of the book.

## Approximation theory

UK Fee £300  
30 points

M832

*Not available in 2004 – presented in odd-numbered years only*

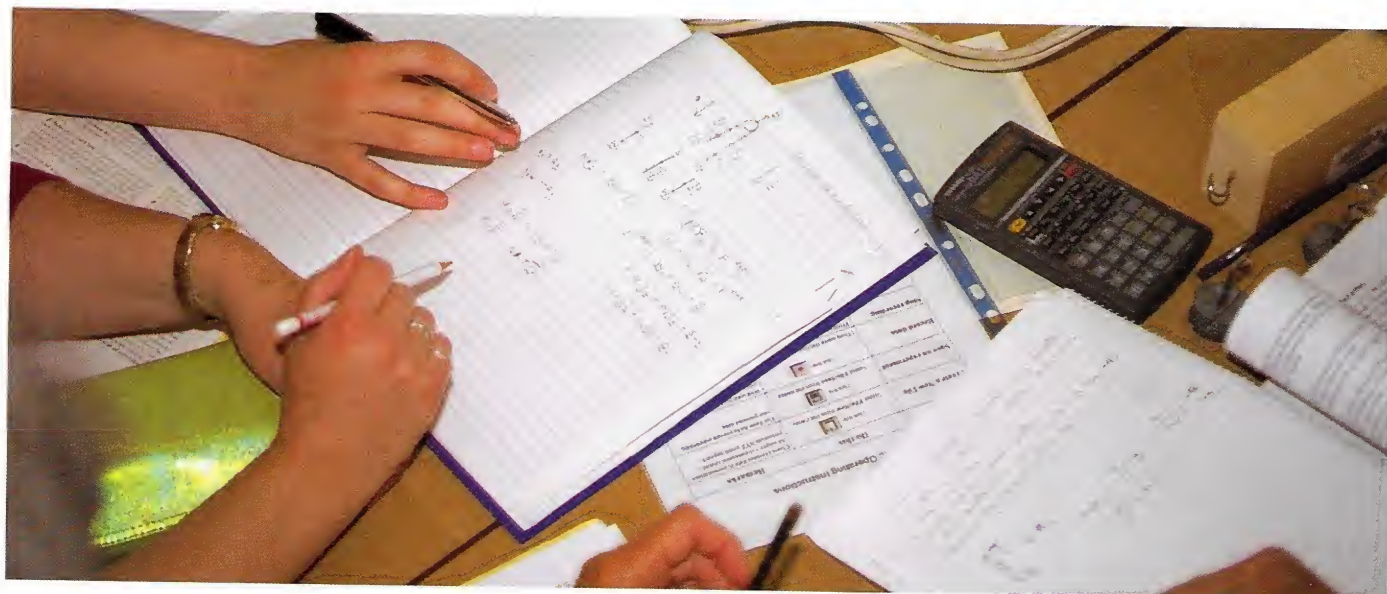
Approximation theory is concerned with the problem of approximating functions of a given class using functions from another, usually more elementary, class. A simple example is the problem of approximating a function such as  $e^x$  by means of polynomial functions. The efficient solution of such problems is of great importance for computing and there has been a correspondingly vast increase in research devoted to such applications. This course gives a general introduction to the mathematical theory that lies behind many approximation methods in common use. To appreciate this theory it is necessary to work quite a lot of numerical problems, so you will need a scientific calculator.

The course is based on the set book *Approximation Theory and Methods* by M. J. D. Powell (1981, Cambridge University Press). A selection of chapters, about two-thirds of the book, is covered in detail.

### Assumed knowledge

You should have a good knowledge of real analysis and linear algebra and some familiarity with metric spaces. An adequate preparation would be The Open University undergraduate-level courses MST207 *Mathematical methods, models and modelling* (or the discontinued course MST204) and M203 *Introduction to pure mathematics* (or the discontinued courses M201 and M231).

No explicit use is made of the theory of complex variables but a knowledge of the subject, as in The Open University course M337 *Complex analysis* (or the discontinued course M332), would be useful since it has many techniques in common with approximation theory.



## M833

UK Fee £300  
30 points

## Advanced mathematical methods

The course teaches advanced mathematical methods with the aid of Maple, an algebraic computing language with graphics and numerical capabilities. The emphasis is on mathematical methods but we use Maple partly to extend the use of the methods, partly to help visualize the mathematics and partly to combine conventional analytic techniques with numerical analysis.

The first quarter of the course teaches the use of Maple – you are not expected to have any knowledge of it before you begin. The rest of the course deals with various forms of approximation: methods of accelerated convergence, Padé approximants, asymptotic expansions,

Fourier series, perturbation methods, Green's functions, Sturm Liouville systems, some eigenvalue problems and aspects of the theory of special functions.

You will need to buy Maple V (Release 7). It is available only from the MSc course manager (address on page 2) and will cost you £40 in addition to the course fee.

You will also need ready access to a PC running Windows 95 or later with at least 8Mb (preferably 16Mb) RAM and about 50 Mb of disk space.

The course is based on the set book *Advanced Mathematical Methods with Maple* by D. Richards (2002, Cambridge University Press).

### Assumed knowledge

You should have a good working knowledge of calculus and the theory of ordinary differential equations. Some knowledge of real and complex analysis is also assumed.

## M835

UK Fee £300  
30 points

## Fractal geometry

There has recently been an explosion of interest in the mathematics of fractals, sets whose geometry cannot easily be described in classical terms. There is no simple definition of a fractal, but all fractals have a highly intricate structure and many are self-similar: they contain copies of themselves at many different scales. Computer pictures have shown that such sets are often very beautiful and, more important, that they are a very good representation of the shapes of many natural phenomena – for instance clouds, mountains and biological objects such as ferns. The theory of fractal geometry provides a general framework for the study of sets that had been thought to be exceptional oddities. This is an active area of research and both the theory and applications of fractal geometry are still being developed.

The course is based on the set book *Fractal Geometry: Mathematical Foundations and Applications* by K. J. Falconer (1990, Wiley) which is in two parts. Part I has eight chapters dealing with the general theory of fractals and their geometry. Part II looks at examples of fractals to which the theory of Part I can be applied. These examples are drawn from a wide variety of areas of mathematics and physics.

The course begins with an introductory chapter covering the necessary background material. Next we study the material in chapters 2–4 of the book, which introduce appropriate definitions of dimension and methods for calculating such dimensions. The second half of the course looks at applications including data compression, examples from number theory, dynamical systems and Julia sets.

### Assumed knowledge

You should have taken a first course in real analysis. An adequate preparation would be The Open University undergraduate-level course M203 *Introduction to pure mathematics* (or the discontinued courses M201 and M231). You must also have experience of studying higher-level mathematics, preferably including an advanced course in analysis such as M337 *Complex analysis* (or the discontinued course M332). The course includes an introduction to some necessary background material, most of which would be covered by courses in metric spaces and measure theory.



## Coding theory

UK Fee £300  
30 points

**M836**

This course covers the theory of error-detecting and error-correcting codes, in particular investigating their constraints and bounds and introducing a wide variety of linear and nonlinear codes together with associated encoding and decoding procedures. It analyses the structure and properties of the codes, investigates links between the theory of error-correcting codes and other mathematical structures

and examines the applicability of codes to real situations. It also looks at the concepts of optimal and perfect codes and examines a wide variety of codes, including some constructed from other mathematical structures. The course is based on the set book *A First Course in Coding Theory* by R. Hill (Oxford University Press).

### Assumed knowledge

The course assumes a level of mathematical maturity consistent with the achievement of a good honours degree in a numerate discipline such as computing, engineering or physical sciences. You are expected to have a mature attitude, good study skills and to take a considerable amount of responsibility for developing your mathematical thought processes.

## The Lebesgue integral

UK Fee £300  
30 points

**M841**

*Not available in 2004 – presented in odd-numbered years only*

This course presents the theory of the Lebesgue integral on  $\mathbb{R}$  and  $\mathbb{R}^k$ . The concepts are built up from first principles wherever possible. The Lebesgue integral is more general than the Riemann integral, with which you are expected to be familiar. It is a basic tool used in probability theory (measure theory), applied mathematics (Fourier series) and physics, where a rigorous treatment of quantum mechanics relies heavily on the concepts of Hilbert space and square integrable functions. Some basic ideas of measure (Lebesgue measure, length, area, volume) are discussed in this course, as well as applications to Fourier series and Hilbert spaces. The course is based on *Lebesgue Integration and Measure* by Alan J. Weir. Topics covered are the real numbers, the Riemann integral, Step functions, the Lebesgue integral on  $\mathbb{R}$ , definite and

indefinite integrals, the Lebesgue integral on  $\mathbb{R}^k$ , Fubini's theorem, the dominated convergence theorem, Lebesgue measure, convergence and normed spaces, Hilbert spaces, Fourier series.

### Excluded combination

You cannot count M841 together with either of the discontinued courses M431 *The Lebesgue integral* and M331 *Integration and normed spaces* towards any Open University qualification.

### Assumed knowledge

A sound knowledge of differential and integral calculus and some experience of the real number system are required. You could get this from, for example, MS221 *Exploring mathematics*, M203 *Introduction to*

*pure mathematics*, MST207 *Mathematical methods, models and modelling* and a good pass (Grade 1 or 2) in three or more Level 3 courses such as M336 *Groups and geometry*, M337 *Complex analysis*, M344 *Aspects of abstract algebra*, M434 *Differential geometry*, M435 *Metric and topological spaces and geometric topology*, M381 *Number theory and mathematical logic*, MT365 *Graphs, networks and design*, MS323 *Introduction to non-linear dynamics*, MST322 *Mathematical models and fluid mechanics* (not all of these are presented every year).

You will be required to construct formal proofs and, while some help is given at the beginning of the course, you should be familiar with the concept of mathematical proof and be able to recognize valid proofs.





# Applying to study on the MSc in Mathematics Programme

## Applying for a course

If you have not previously studied a Mathematics MSc course at The Open University (OU), application is made only by completing an application form. A hard copy of this form is on pages 17-20 of this prospectus, alternatively an electronic version may be obtained by sending a blank e-mail, that contains no message, to [msc-maths-form@open.ac.uk](mailto:msc-maths-form@open.ac.uk) from your e-mail address.

It helps expedite your application if you ensure that all questions are answered fully and accurately.

Your application will be considered by the MSc Programme Board which will offer places to applicants considered qualified and prepared, possibly also taking account of subject specialization and mathematical experience. You will be offered only one course in your first year of postgraduate study, but may take more than one in subsequent years.

We aim to respond to applications within one month of receipt. On receipt of an offer you will be given a date by which you must register by returning a completed registration agreement with your payment or commitment to pay.

## How to apply for the MSc in Mathematics

Fill in the application form found on pages 17-20 in your prospectus or using the electronic route described above.

Send the completed form to:  
The Secretary, MSc in Mathematics  
Faculty of Mathematics and Computing  
Courses Office  
The Open University  
Walton Hall  
Milton Keynes  
MK7 6AA

If you have any queries about the MSc in Mathematics, the application process or your suitability for the programme, please phone the Faculty of Mathematics and Computing Courses Office on 01908 858835 (24 hours answerphone service), or write to the Secretary at the address above.

If you have any other queries about aspects of study with The Open University, e.g. student support, fees, disability or study abroad, please phone the appropriate National or Regional Centre (page 21) or our non-UK representatives (page 15).

## Entry requirements

To register for the MSc in Mathematics you should normally have a first-class or upper second-class honours degree (please see page 2 for full information).

## When to apply

Courses for the MSc in Mathematics start in February and the final exam is during October of the same year. Students applying between 1 January and 31 July in the year prior to study will usually be offered their first choice, provided the entrance requirements are satisfied.

Suitable applications arriving between 1 August and 31 October will be accepted, but not necessarily on the preferred course. Suitable applications arriving after 1 November will be considered and accepted on a course only if places are available.

## Application for further courses

Once you are registered for the MSc in Mathematics, you will be able to choose further courses from the programme in subsequent years. We will send you information about how to do this each spring. Your registration will continue if you have made satisfactory progress and places on a course of your choice are available.

## Computing

The only Mathematics MSc course for which a computer is essential is M833. However, you may find the Internet links to our library resources useful, but not essential, for other MSc courses. Please do not consider buying a computer for OU studies without first reading the detailed specification for your course which will be sent to you with your registration pack once your application has been accepted. Alternatively you can obtain details from Regional Centres, from OU representatives outside the UK and from our website at [www.open.ac.uk/personal-computing](http://www.open.ac.uk/personal-computing)

## Libraries

The Open University's online Open Library service will enable you to find materials to support your study. This Internet-based service offers easy access to a vast range of full-text journal articles, e-books, image databases and references and is available to students whether located in the UK or abroad.

You may also like to use information from websites in your studies. To make it easier to find and identify good quality websites, you can use the ROUTES database of specially selected websites. ROUTES can be searched or browsed by subject or by course code.

If you would like to improve your information searching skills, online training materials such as the free Safari tutorial are available on Open Library. Safari will help you to develop essential skills in finding, evaluating and using information to support your studies.

## Study dates, application and registration

### 2003

31 October  
July–November

Closing date for registrations  
Offers of registration

### 2004

February  
May  
October  
December–January

Course begins  
Invitations to register for 2005  
Examinations  
Course results

The Open University Library's Learner Support team can provide advice on how to make the best use of Open Library. You can contact them by e-mail and telephone (see below).

Open University students are welcome to use the library at Walton Hall to borrow books or to make use of journals and databases. Many other university libraries allow OU postgraduate students to make use of their resources, although there may be a charge for borrowing books. If you live in the UK and would like to find out about university libraries near you, search the *Access to University and Other Higher Education Libraries for Open University Students* database on Open Library. Alternatively, you can ask the Library's Learner Support Team to search the database for you, or ask your Regional Centre for information on libraries in the area.

Another option for Open University students is to use the National Libraries of Scotland and Wales. In addition, OU students can apply to the British Library for a five-year pass, free of charge, to use the St Pancras reading rooms.

For further information:  
Open Library website  
<http://www.open.ac.uk/library>

ROUTES  
<http://routes.open.ac.uk/>

Learner Support Team  
E-mail: [lib-help@open.ac.uk](mailto:lib-help@open.ac.uk)  
Tel: 01908 659001

## Language

The language used for instruction, assessment and administration will be English and your spoken and written English must be of an adequate standard for postgraduate study. Your Regional Centre, or outside the UK your OU representative, will be able to give you advice if you need it. If English is not your first language you can get information from The Open University in the North about assessing your English language skills in relation to your proposed studies.

## For Welsh speakers

If you would prefer to discuss your study needs in Welsh, you are welcome to contact The Open University in Wales in Cardiff (for address see page 21) where we will be pleased to offer you personal guidance as well as information about the services available. You may contact us by letter, telephone call, e-mail, or, if you prefer, you are welcome to visit us. We would recommend that you make an appointment first to ensure that an appropriate adviser will be available.

Please note that although we are able to offer a range of services for Welsh speakers, our course materials and teaching are normally in English.

## I siaradwyr Cymraeg

Os yw hi'n well gennych drafod eich anghenion astudio yn Gymraeg mae croeso i chi gysylltu â'r Brifysgol Agored yng Nghymru yng Nghaerdydd (gweler y cyfeiriad ar dudalen 21) lle byddwn yn falch o roi cyfarwyddyd personol i chi yn ogystal â gwybodaeth am y gwasanaethau sydd ar gael. Gallwch gysylltu â ni drwy lythyr, galwad ffôn neu neges e-bost, neu, os yw hi'n well gennych, mae croeso i chi ymweld â ni. Byddem yn argymhell i chi wneud apwyntiad gyntaf i sicrhau y bydd arbenigwr priodol ar gael.

Nodwch, os gwelwch yn dda, er ein bod yn gallu cynnig ystod o wasanaethau i siaradwyr Cymraeg, bod ein deunyddiau cwrs ac addysgu fel arfer yn Saesneg.

## Age and other study commitments

You must be at least eighteen before 1 January of the year your course begins. If you are a full-time student at another institution you must get written permission from that institution's Principal to study with The Open University. You may not take courses amounting to more than 120 points in any twelve-month period.

## Residence

The University welcomes applications from residents in all countries where we register students. If you intend to study outside the United Kingdom you are advised to ask the appropriate Regional Centre or local representative (see pages 15 and 21) about the facilities that will be available.

## Student Profile

### Lesley Kane



*I did a first degree with The Open University and most of the courses I studied were Maths courses. When my youngest child was four, I felt that I had been away from Maths for quite a while and that I would lose touch with it if I didn't start to study again. I considered various alternatives and The Open University's MSc in Maths seemed the best option because of the flexibility of OU study, which is helpful if you have young children.*

*Studying for the MSc in Maths was hard work at first, partly because of the nine-year gap I had left between finishing the BA and starting the MSc, but it became easier as I continued. On the basis of my experience I think it is important to consider carefully which is the best course to study as your first course for the MSc and this will depend partly on what Maths courses you have studied in the past.*

*I have finished the MSc and I'm very pleased that I chose to do it. I am now considering the possibility of doing a research degree.*

*OU students on MSc courses are geographically more dispersed than those on undergraduate courses and a recent development may prove useful. MSc in Maths students can now communicate with each other via a FirstClass conference provided by the OU or via an e-mail group that was set up by the students themselves.*



## Studying outside the UK

Most of our courses are open only to residents of the following countries:

Austria	Italy
Belgium	Luxembourg
Denmark	Netherlands
Finland	Portugal
France	Slovenia
Germany	Spain
Gibraltar	Sweden
Greece	Switzerland
Republic of Ireland	

We have local representatives in most countries where we register students (see page 15).

## Examinations outside the UK

For most courses there is at least one examination centre in a major city in each of the countries listed above. Some students may have to travel considerable distance to the nearest examination centre, but in exceptional cases we may be able to arrange an examination closer to your home. If so, there will be an extra charge (in 2003, £148 for each examination, which will be slightly increased for examinations taken in 2004).

## Equal opportunities

The Open University makes every effort to create conditions in which students and staff are treated solely on the basis of their merits, abilities and potential, regardless of gender, colour, ethnic or national origin, age, socio-economic background, disability, religious or political beliefs, family circumstance, sexual orientation or other irrelevant distinction.

## Help and advice

We have advisory staff in our National and Regional Centres and representatives in other parts of Europe who will help with questions you may have. We can offer a wide range of advice about choosing courses, preparation, study arrangements or difficulties, tutorial support and financial help. If you have a question, however small, please get in touch. Contact details are on pages 15 and 21.

If you experience problems with the University's services, please inform us as soon as possible so that we can do our best to put things right. As a first step you should contact the area that provides the service. If you are not sure who to contact, your National or Regional Centre will help.

Our aim is to provide a high-quality service for you. We have statements of service covering careers, complaints, disability, educational advice and equal opportunities. You are welcome to ask your National or Regional Centre for any of these statements.

## If you have a disability, medical condition or specific learning difficulty

Our system of learning, which combines expertise in distance-based teaching with a wide range of multimedia learning materials and personal support, is more accessible to many people than traditional forms of study. We make every effort to create conditions in which students are treated solely on the basis of their merits, abilities and potential, and have developed a range of additional support services to help make this possible, for example:

- specialist information and advice to help with course choice
- additional study guidance materials and support throughout the course
- electronic versions and audio recordings of printed course material
- printed course materials in comb-bound format
- transcripts of audio-visual materials
- loan of specialist equipment such as radio aids, talking calculators and adapted computers

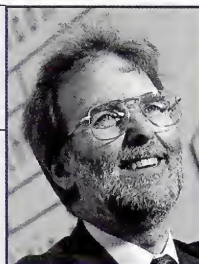
- needs assessments and technology support provided by The Open University's Access Centre and others
- additional examination and assessment arrangements

For some courses we provide these services free unless you receive a Postgraduate Disabled Students' Allowance (Postgraduate DSA) (see page 11) that you can use to pay for them. You can get summary information about all services for students with disabilities on our website at [www.open.ac.uk/learners-guide/disability](http://www.open.ac.uk/learners-guide/disability) or in our booklet *Open to Your Needs*, which you can get in various formats from any of our National or Regional Centres.

If you register on a course we will ask you whether you have a disability, specific learning difficulty or medical condition that might affect your studies. If you do, we will send you the booklet *Meeting Your Needs*, which provides more detailed information about the services we offer and the nature of Open University study. A Facility Request Form (FRFI) is included with each booklet (and is available online). You should fill this in and return it as soon as possible so we have enough time to consider your request and get the services and facilities in place by the time you need them.

## Student Profile

### Richard Le Corney



*It was 25 years since my first degree in Mathematics and I had not had much opportunity to do maths since. As I was in full-time employment, frequently travelling or working late, I could not guarantee regular class attendance and I doubted I could maintain the momentum to complete a research project. The Open University's taught MSc was ideal as I could fit my study around my work commitments and it was well paced, with deadlines for submission of assignments followed by revision time for the exams.*

*The course materials provided excellent guidance through the text books, with frequent sets of straightforward questions to consolidate the learning and deeper problems to reinforce the understanding. I could then approach the marked assignments with some confidence. The marking was constructive and often accompanied by additional printed notes of explanation for all the students.*

*The course tutors were contactable by phone or letter and the voluntary self-help groups offered additional support. A list of students on the same course had the contact details of all who wanted to give them.*

*I hope to take early retirement in a few years and I intend to undertake basic teacher training to qualify me for Further Education. My recent MSc will demonstrate that I am still capable of teaching advanced mathematics. I may even use it as the basis for undertaking a research degree. A third studenthood would be much more satisfying than a second childhood!*



## Postgraduate Disabled Students' Allowance

If you live in the UK, you may be eligible for a public grant called the Postgraduate Disabled Students' Allowance to help to pay for study-related costs that arise from your disability, medical condition or specific learning difficulty. For more information, see page 12 or visit our website at [www.open.ac.uk/learners-guide/disability](http://www.open.ac.uk/learners-guide/disability). To be eligible for a Postgraduate DSA you must be taking courses that total at least 60 points in any one year and that count towards an OU taught postgraduate qualification requiring at least two years but not more than three years to complete. There are certain country-of-residence requirements as well and you will need to provide documentary evidence of your disability. The arrangements for administering postgraduate DSAs depend on where you live. Please ask your National or Regional Centre (see page 21).

## Open University Careers Service

For information about what kind of course or qualification could help to develop your career or about the recognition of OU qualifications by professional bodies, look at the OU's career planning website at [www.open.ac.uk/learners-guide/careers](http://www.open.ac.uk/learners-guide/careers) and look at the section entitled *OU Study and Your Career*. Alternatively, you could contact your nearest Regional Centre for more information and advice or ask for the Recognition leaflet 1.5, *Career Planning with The Open University*, which outlines the process of planning your career and points you towards services and resources that can help. You can also request a copy of the OU Careers Service statement of service by contacting your National or Regional Centre; it is also available on the careers website.

## Fees and Financial Support

### Fees, other costs and financial support

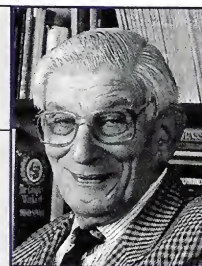
UK fees are given in the course descriptions. If you live outside the UK, your fee will be higher because the UK fee includes a government subsidy restricted to UK residents and students with BFPO addresses. You need to add the following amount to the fee quoted for UK students.

Republic of Ireland	£305
Other countries	£465

If you are studying outside the UK, you can pay for your course by a cheque drawn in Euros. We will use the exchange rate in effect on the day we process your registration agreement.

## Student Profile

### Dr Peter Trier



*When I began the MSc in Mathematics it was very demanding and sometimes one was almost overwhelmed by the new concepts that had to be mastered; but at the end of each course there was a great feeling of achievement when the exam was over and one more hurdle had been cleared.*

*What made me start on it in the first place? At 72 years old there was no longer any reason to seek career advancement, but in many ways it was the peak of a lifetime ambition. I had taken a Maths degree at Cambridge during the war, but I was then directed into electronics and somehow got stuck there, first in communications research, later in R&D management. I had no regrets, but there always remained a hankering to get back into some real Mathematics. At last The Open University provided this opportunity. My first degree had been mostly based on 18th and 19th century Maths, but The Open University courses were beamed on 20th century topics and methods, many of them quite unknown until recently.*

*My favourite modules were perhaps those with which I was least familiar beforehand, such as the course on Functional Analysis. I found these the most difficult and most demanding subjects, calling for more concentrated work than any of the others; but significantly, they are also the ones to which I have reverted again and again in spare time reading since graduating.*

*The tutorial notes supplied and the personal support were magnificent; every assignment was returned packed full with notes and suggestions for overcoming the hurdles and quite often with pointers for alternative ways of looking at a problem; and telephone help was always readily given.*

*Looking back, it was a marvellous experience in every way and I would not have missed it for anything. It got me one step nearer to the true professionals in the field and it has given me a new understanding of 20th century advances in Mathematics.*

As well as course fees, you may have other costs to plan for. These will vary depending on the course you choose and your personal circumstances. They may include one or more of the following:

**Computers:** see page 8

**Set texts:** most MSc courses are based on set books, which are not included in the fee. For M833 you will also need to purchase software.

**Other equipment:** for some courses, a scientific calculator will be useful.

### How to pay

We have several ways to help you to pay your fees. Before deciding whether or not to register, you have the opportunity to get advice from regional advisory staff and to look at the possibility of financial support (see *Financial support*). You can pay in any of the following ways.

#### Pay when you register

You can pay in full by credit or debit card or by cheque when you register for a course.

#### Pay through OUSBA

The Open University Student Budget Accounts Limited (OUSBA) offers students two ways to pay:

- **Buy now pay later.** When you register for your course(s), OUSBA will pay your full course fee(s) direct to The Open University. You will then have to pay OUSBA back in full just before your course starts. This method incurs no interest on the loan.
- **Pay by instalments.** OUSBA will pay The Open University when you register on your course(s). You will not have to start repaying your loan until about one month after the start of your course. Monthly payments will be due on or shortly after the fifth of each month and are spread over the length of your course. For example, if your course lasts nine months, you will normally have eight monthly instalments; if twelve months, there will be eleven monthly instalments. Currently interest on the outstanding balance is charged at 8.5% (APR 8.8%).

Details of the Open University Student Budget Account will be included in your registration pack. You can also get more information about OUSBA on their website at [www.open.ac.uk/ousba](http://www.open.ac.uk/ousba) or by phoning 01908 655777 (08.30–17.30 Monday to Thursday, and 08.30–17.00 Fridays).



### **Support from employers**

Many employers recognize the value of their employees' study with The Open University by paying some or all of the course fee. You must decide for yourself whether to approach your employer for sponsorship, but we will help you by sending you information and a sponsorship form in your registration pack.

### **Refunds**

We have a refund scheme in case you change your mind about studying. New students can stop studying after the first third of the course and pay only half the course fee, so if you start studying in February you have until 30 April to decide whether OU study is right for you. You will be given full details before we ask you to make any commitment.

### **Hardship funds**

The government provides every university with a hardship fund for the benefit of part-time students in financial difficulty. Money from the fund is intended to help with study and living costs, such as books and equipment, childcare, transport, accommodation and utility costs. Payments can only be made once you begin studying. If you need any advice, please contact staff at your local National or Regional Centre. Hardship funds are not available to students living in Scotland.

The University is unable to offer any financial support for course fees for postgraduate study.

### **Postgraduate Disabled Students' Allowance**

If you have a disability you may be eligible for a Postgraduate Disabled Students' Allowance which for 2003 could be worth up to £5,245.00 (see page 11). To find out whether you are eligible and how to apply for the allowances for 2004, please ask your local National or Regional or Regional Centre.

### **Career Development Loan**

Another source of help that may be available to you is a deferred-payment Career Development Loan, a scheme operated by four of the larger banks on behalf of the government. If you want more information about Career Development Loans, you can telephone 0800 585 505 (freephone) between 08.00 and 22.00, Monday to Sunday, for a booklet and application form.

### **The University's regulations**

When you register for an MSc in Mathematics course, the registration pack we send will tell you more about your contract with The Open University. Then, when you become a student, we will send you more detailed information about studying in the MSc in Mathematics programme. If you have any questions now, please contact your National or Regional Centre.

### **Data protection**

When you contact the University we create a record in your name. Information that we then collect, including information you give us during registration, is added to that record. Your personal data is the responsibility of the Open University's Data Controller, who is the University Secretary.

You have the right under the Data Protection Act, on payment of a fee (£8 at present), to information about your personal data (the right of 'subject access'). You should address your request to the Data Protection Coordinator, The Open University, Box 497, Milton Keynes, MK7 6AT.

The personal information that you provide when you enquire or register may be used:

- To deal with your enquiry or application and to provide you with appropriate services. These may include sending you further information.
- For the purposes of research in order to help us plan and improve our services. We may contact you ourselves or ask outside research agencies to do so on our behalf.

More information about the processing of your personal information as a student will be sent to you at registration.

### **Recording phone calls**

To make sure that we have carried out your instructions correctly and to help us improve our services through staff training, phone calls between you and the University may be recorded.



## Other OU prospectuses

This prospectus is one of a series describing our programmes of study. If you would like any of those listed below and you are living in a country where we accept registrations (see page 10) please:

- phone 01908 653231 (from the UK) or +44 1908 653231 (from outside the UK)
- visit our website at [www.open.ac.uk/courses](http://www.open.ac.uk/courses)
- e-mail [general-enquiries@open.ac.uk](mailto:general-enquiries@open.ac.uk)

● tick the appropriate box and return this page to: The Course Information and Advice Centre, The Open University, Freepost, PO Box 625, Milton Keynes MK7 6YG, United Kingdom.

If you have impaired sight we can provide the undergraduate catalogue and prospectus on audio cassette, please ask your Regional Centre for details.

Content	Title	Code	Tick
An overview of undergraduate courses and qualifications	<i>Undergraduate Certificates, Diplomas and Degrees and Undergraduate Courses Catalogue (two part prospectus)</i>	CDD	<input type="checkbox"/>
Brief summary of all higher-degree programmes	<i>Higher Degrees</i>	HD	<input type="checkbox"/>
Full-time and part-time research study opportunities	<i>Research Degrees</i>	RD	<input type="checkbox"/>
A detailed description of the law programme offered in collaboration with the College of Law	<i>Law Programme</i>	LAW	<input type="checkbox"/>
Details of the MBA and other management, business studies and professional courses	<i>Business School Prospectus</i>	OUBS	<input type="checkbox"/>
Courses, qualifications and study materials for professionals in health and social welfare	<i>Professional Development in Health and Social Care</i>	SHW	<input type="checkbox"/>
Study packs, courses and qualifications for professionals in education	<i>Professional Development in Education</i>	PDE	<input type="checkbox"/>
Courses for training teachers	<i>Flexible PGCE (Initial Teacher Training)</i>	PGCE	<input type="checkbox"/>
Details of language courses, qualifications and resources	<i>Languages</i>	TML	<input type="checkbox"/>
Postgraduate professional accreditation for higher education teachers and postgraduate qualifications in Open and Distance Education	<i>Institute of Educational Technology Prospectus</i>	IET	<input type="checkbox"/>
Postgraduate courses for professional engineers and technical managers. That can be taken on their own or as part of a diploma or higher degree	<i>Computing for Commerce and Industry</i>	CCI	<input type="checkbox"/>
	<i>Manufacturing: Management and Technology</i>	MMT	<input type="checkbox"/>
	<i>MBA (Technology Management)</i>	MBT	<input type="checkbox"/>
Courses and qualifications in environment and development	<i>Global Programme in Development Management</i>	GDM	<input type="checkbox"/>
	<i>Postgraduate Programme in Environmental Decision Making</i>	EDM	<input type="checkbox"/>
Higher degrees for those who already hold degrees in appropriate subject areas	<i>MA in Humanities</i>	MAH	<input type="checkbox"/>
	<i>MSc in Mathematics</i>	MSM	<input type="checkbox"/>
	<i>Master's Programme in the Social Sciences</i>	MSS	<input type="checkbox"/>
	<i>MSc in Science</i>	MSC	<input type="checkbox"/>
<b>Information on our short courses and how to register</b>			
Technology short courses	<i>Technology Short Courses</i>	TSCP	<input type="checkbox"/>
How to study with a computer	<i>Get Connected</i>	UI30SC	<input type="checkbox"/>
Introducing the World Wide Web	<i>Web Certificate</i>	TTWSCP	<input type="checkbox"/>
Short courses on improving writing skills	<i>Start Writing</i>	ARTSC	<input type="checkbox"/>
Science short courses	<i>Science Short Courses</i>	SCPAC	<input type="checkbox"/>

Surname/family name

Title (Mr, Ms, Dr etc.)

Initials

OU personal identifier, if you have one and can remember it

Address for correspondence


Postcode/country code

Date of birth

 /  / 19

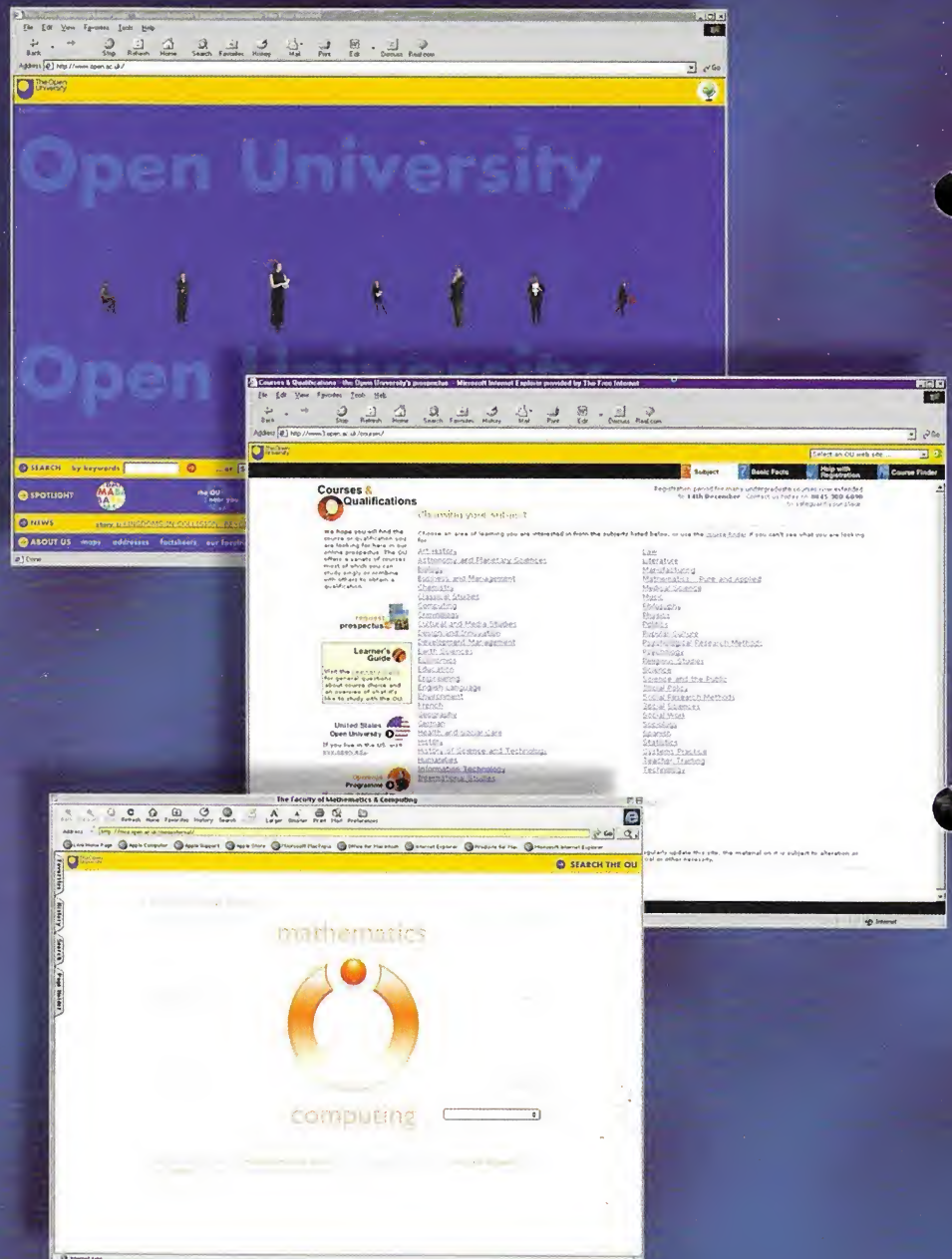
MSMD



# Visit the OU's extensive website at **www.open.ac.uk**

There is a lot of useful information and advice on the University's website, more than there is room for in this prospectus. There are clear routes through the information so you only need to read the bits that interest you.

- Full details of all courses and awards (including the most up-to-date information)
- Learner's guide to studying with the OU and advice on choosing your course
- Maps and contact details for local information





## The OU near you: contact points for advice and application

For specific advice about the MSc in Mathematics, call the Faculty of Mathematics and Computing Courses Office on 01908 858835 (24 hours answerphone service), or write to The Secretary at the address below.

### Advice about study in the UK

Call your local Regional Centre or, outside office hours, the advice line.

#### Regional Centre office hours

Monday to Friday 08.30-17.00

#### Advice Line

Telephone 0870 333 1444 (calls to this line are charged at the national rate).

Monday to Friday 17.00-21.00

Saturday 09.00-17.00

Experienced staff in the nearest Regional Centre to you will be pleased to offer you personal guidance by letter, telephone, e-mail or, if you can travel to the Regional

Centre, an informal discussion – but please make an appointment. Regional Centre staff can give you information about most aspects of studying with the OU and help you to think through your own needs and choices. Why not come and meet us at one of our events where you can talk to Open University staff? At some events there may also be samples of course materials and information and advice about specific subject areas and careers. Find out the details of the events nearest to you by visiting our website at [www.open.ac.uk/near-you](http://www.open.ac.uk/near-you) or by contacting your Regional Centre.

### Advice about study outside the UK In Ireland:

Phone our Enquiry and Advice Centre in Dublin on 01 6785399

Use our website [www.open.ac.uk/courses](http://www.open.ac.uk/courses)

E-mail [Ireland@open.ac.uk](mailto:Ireland@open.ac.uk)

### For other countries where we accept registrations

Phone your local country representative – (see below)

Phone +44 191 213 1380 (The Open University in the North)

Use our website [www.open.ac.uk/courses](http://www.open.ac.uk/courses)

E-mail to [Europe@open.ac.uk](mailto:Europe@open.ac.uk)

### To apply

Fill in the application form on pages 17-20 in your prospectus.

Send the completed form to:

The Secretary, MSc in Mathematics  
Faculty of Mathematics and Computing  
Courses Office  
The Open University  
Walton Hall  
Milton Keynes  
MK7 6AA

## OU representatives outside the UK

We have local representatives in most countries where we register students. Their main duties are to offer information and advice to enquirers and to coordinate tutorial centre and examination arrangements.

### Republic of Ireland

The Open University  
Enquiry and Advice Centre  
Holbrook House  
Hollis Street  
Dublin 2  
Tel. (01) 678 5399  
Fax (01) 678 5442  
E-mail [Ireland@open.ac.uk](mailto:Ireland@open.ac.uk)

### Austria

Open University Representative  
Tel. 01 533 2390  
Fax 01 533 3073  
E-mail [S.Shaw@open.ac.uk](mailto:S.Shaw@open.ac.uk)

### Belgium

Open University Co-ordinator  
Tel. (02) 644 3372  
Fax (02) 644 3368  
E-mail [Europe@open.ac.uk](mailto:Europe@open.ac.uk)

### France

Open University Co-ordinator  
Tel. 01 47 58 53 73  
Fax 01 47 58 55 25  
E-mail [R.Pearson@open.ac.uk](mailto:R.Pearson@open.ac.uk)

### Germany (North)

Open University Representative  
Tel. 040 42883 2478  
Fax 040 42883 2651  
E-mail [ou@aww.uni-hamburg.de](mailto:ou@aww.uni-hamburg.de)

### Germany (Central)

Open University Co-ordinator  
Tel. 0221 1626 235  
Fax 0221 1626 350  
E-mail [B.Schwerdtfeger@open.ac.uk](mailto:B.Schwerdtfeger@open.ac.uk)

### Germany (South)

Open University Co-ordinator  
Tel. 08139 7373  
Fax 08139 7365  
E-mail [M.Hawkes@open.ac.uk](mailto:M.Hawkes@open.ac.uk)

### Greece

Open University Co-ordinator  
Tel. and fax (01) 2970 26069  
E-mail [J.Oldroyd@open.ac.uk](mailto:J.Oldroyd@open.ac.uk)

### Italy

Open University Co-ordinator  
Tel. and fax 02 813 8048  
E-mail [J.Pollard@open.ac.uk](mailto:J.Pollard@open.ac.uk)

### Luxembourg

Open University Co-ordinator  
Tel. 2634 0072  
Fax 2634 0073  
E-mail [Valerie.Scott@open.ac.uk](mailto:Valerie.Scott@open.ac.uk)

### Netherlands

c/o The Open University  
Eldon House  
Regent Centre  
Newcastle upon Tyne  
Tel. +44 191 284 1611  
Fax +44 191 284 6592  
E-mail [Europe@open.ac.uk](mailto:Europe@open.ac.uk)

### Portugal

Open University Co-ordinator  
Tel. 21 321 4554  
Fax 21 347 6151  
E-mail [C.Trewinnard@open.ac.uk](mailto:C.Trewinnard@open.ac.uk)

### Spain

Open University Co-ordinator  
Tel. (91) 577 7701  
Fax (91) 435 8635  
E-mail [K.Fitzroy@open.ac.uk](mailto:K.Fitzroy@open.ac.uk)

### Switzerland

Open University Co-ordinator  
Tel. and fax 022 788 6473  
E-mail [M.M.Johnson@open.ac.uk](mailto:M.M.Johnson@open.ac.uk)

### Enquiries from other countries

If you live in Gibraltar, Scandinavia or Slovenia, you should contact Region 09, The Open University in the North (see page 21).

If you have a British Forces Post Office address outside the UK (but not Cyprus), you should contact Region 04 West Midlands (see page 21).

If you have a British Forces Post Office address in Cyprus, you should contact Region 07 Yorkshire (see page 21).



# How to make an application

## Notes to help you complete your application form

### Note 1 Personal identifier

On your first formal contact with the University we give you a personal identifier (eg. U1223456). If you have studied with us before, it is important that you quote any earlier number you have been given so that we can be sure we have only one record for you.

### Note 2 Address

If you live in the United Kingdom it is important to enter your postcode on the form. BFPO codes should also be put in the postcode box. If you live outside the UK, leave the postcode box empty and include your country of residence and any postcode in the address box.

The address you give here is the one we will use for correspondence. When you register you may give a second address to which we can send bulky course materials.

### Note 3 Telephone number

Please give the full code and number of your home or work telephone. If you live outside the UK, include your international dialling code.

### Note 4 Entry qualification

Enter details of one qualification only. Other qualifications may be listed on a separate sheet. *If you obtained your qualification outside the United Kingdom give its full name in the original language, not its equivalent.* If your degree is an honours degree, please say so.

### Note 5 Awarding body

Please complete these questions in full, unless your qualification was awarded by The Open University. If your qualification was awarded by the CNAA, enter CNAA followed by the name of the institution where you studied (e.g. CNAA – Bristol Polytechnic) and leave the rest blank. If you have a professional qualification, please give the name and address of the awarding body.

### Note 6 Name change

Please answer this question whether your qualification was awarded by The Open University or by another institution.

### Note 7 OU studies

You may have already taken M431 *The Lebesgue integral*, M860 *Software engineering* or M861 *Computer architecture and operating systems* (see page 2) as a student of the University. If these courses have not already been counted as part of your entry qualification, you may be able to count them towards the MSc in Mathematics. Please give the codes of any of these courses that you have successfully completed, so that we can add them to your award record if appropriate.

### Note 8 Disability, medical condition or specific learning difficulty

The OU welcomes disabled students and will do its best to meet your needs. Your reply to this question will have no bearing on whether or not we offer you a place. If you are likely to need special services to make the most of your OU studies, you should answer 'Yes'. We will then send you our booklet *Meeting Your Needs*.

### Note 9 Study concerns

We will do our best to help you if you are concerned about your ability to study. You might want to mention things like:

- having little or no recent experience of study at postgraduate level;
- not being familiar with the requirements of study at postgraduate level;
- work problems, including shift patterns or travel away from home;
- language, if English is not your first language;
- financial or other personal difficulties.

### Note 10 Additional information

This question is to give the MSc in Mathematics Programme Board more detailed information with which to assess applicants, so it is important to complete it as fully as possible. You may give:

- details of courses you have already studied (excluding Open University courses you have mentioned elsewhere) and the results you obtained;
- evidence of your ability to study at postgraduate level. This is particularly important if your formal qualifications do not meet the normal entry requirements for this degree. You could mention, for example, relevant courses you have taken, positions of responsibility or publications or research work you have taken part in. If you do not possess the normal qualifications you need to convince the Programme Board that you will be able to cope with your studies;
- any additional academic or professional qualifications that you have not mentioned elsewhere.

# Application to study the MSc in Mathematics

Please write clearly in block capitals and be sure to sign the form. It is essential that all questions beginning with bold type are answered in full, otherwise there may be delays in dealing with your application.

No payment is due at this stage. You may need to refer to the prospectus and, in particular, to the notes on page 16. Where there are alternatives, circle the one that applies.

## Your personal details

1	Surname/family name	<input type="text"/>		
2	Forename(s) in full	<input type="text"/>		
3	Title (Mr, Ms, Dr etc.)	<input type="text"/>	Male or female	<input type="text" value="M"/> / <input type="text" value="F"/>
4	Date of birth (day, month, year)	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	Have you applied to the OU before?	<input type="text" value="Yes / No"/>		
	If so, please provide your personal identifier, if you have one and can remember it (note 1)	<input type="text"/>		
6	Address for correspondence (note 2)	<input type="text"/>		
		<input type="text"/>		
		<input type="text"/>		
		<input type="text"/>		
		<input type="text"/>		
	UK postcode or BFPO number	<input type="text"/>		
7	E-mail address, if available	<input type="text"/>		
8	Telephone code and number (note 3)	<input type="text"/>		
		<input type="text"/>		
		<input type="text"/>		
		<input type="text"/>		

## Your study details

- 9 Give details of the course you wish to study; remember that students new to the MSc programme may study only one course in their first year. Please list more than one course in case your preferred course is not available: the course details are listed on pages 3-7

Preference	Course Title (abbreviate if necessary)	Course code
1st choice		
2nd choice		
3rd choice		



Entry qualifications

Please give details of the highest appropriate qualification, which you either already hold or are now studying for, that satisfies the entrance requirements for the MSc in Mathematics.

10 Your entry qualifications

Give the abbreviated title of your entry qualification  
(e.g. BSc(Hons)) (note 4)

Give the full title of your entry qualification if gained outside the UK

If this qualification was graded how was it classified?  
(e.g. 1, 2, 2i, 2ii, 3, pass)

Date of award (month/year)

11 Awarding body (note 5)

Name of institution or awarding body

Address of institution or awarding body  
(unless OU or CNAA)

Postcode

Country

12 If your name has changed, give the name in which the award was made (note 6)

Title	Forename(s)	Surname/family name
<div></div>	<div></div>	<div></div>

13 Main subject(s) studied as part of your entry qualifications, including estimated percentages of study, e.g. Mathematics 60%, Statistics 40%

Subject studied	Estimated % of study

OU studies

14 If you have already successfully studied OU courses that you wish to count towards your MSc please list the course codes here (note 7)



- 15 List here any other third or fourth level OU mathematics courses, not covered by questions 13 and 14, that you have taken or are taking

Year	Course	Result

Year	Course	Result

#### Other information

- 16 Give a brief history of relevant aspects of your career using the space provided. Please do not attach a separate curriculum vitae

Dates	Your position	Name and business of your employer

- 17a Have you any disability, medical condition or specific learning difficulty, such as dyslexia, that might affect your studies and for which you may need special support from the OU (note 8)?

Yes / No

- 17b If you have answered 'yes' to 17a, we will send you our booklet *Meeting Your Needs*. If you would like it in an alternative form please tick the appropriate box

Audio-cassette

Braille

Electronic


- 18 Please use this space if you would like to tell us about your study plans or ask us any questions about preparing for or studying at postgraduate level with The Open University (note 9)




Additional information. Please see note 10 for guidance on completing this question. Continue on a separate sheet if necessary, but do not attach a separate curriculum vitae


The University reserves the right to cancel any registration if it was based on information that proves to be untrue or misleading.

Signature

Date

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Send your completed application form to:

The Secretary, MSc in Mathematics  
Faculty of Mathematics and Computing Courses Office  
The Open University  
Walton Hall  
Milton Keynes  
MK7 6AA

Please do not send any payment at this stage. If you change your address after returning your application form, please inform us as soon as possible.

*The Open University protects the personal data provided by its applicants and students in compliance with the 1998 Data Protection Act, see page 12 for further details.*

# National and Regional Centres

## London Region 01

The Open University in London  
1-11 Hawley Crescent  
Camden Town  
LONDON NW1 8NP  
Tel. 020 7485 6594  
Fax 020 7556 6196  
E-mail London@open.ac.uk

*Area covered*  
Greater London

## South Region 02

The Open University in the South  
Foxcombe Hall  
Boars Hill  
OXFORD OX1 5HR  
Tel. 01865 735140  
Fax 01865 736288  
E-mail south@open.ac.uk

*Area covered*  
Berkshire, Buckinghamshire, Channel Islands, Dorset, Hampshire, Isle of Wight, Oxfordshire, part of Wiltshire

## South West Region 03

The Open University in the South West  
4 Portwall Lane  
BRISTOL BS1 6ND  
Tel. 0117 925 6523  
Fax 0117 925 5215  
E-mail south-west@open.ac.uk

*Area covered*  
Bristol, Cornwall, Devon, Gloucestershire, Somerset, Isles of Scilly, most of Wiltshire

## West Midlands Region 04

The Open University in the West  
Midlands  
66 High Street  
Harborne  
BIRMINGHAM B17 9NB  
Tel. 0121 428 1550  
Fax 0121 427 9484  
E-mail west-midlands@open.ac.uk

*Area covered*  
Herefordshire, Worcestershire, Shropshire, most of Staffordshire, Warwickshire, West Midlands

## East Midlands Region 05

The Open University in the East Midlands  
Clarendon Park  
Clumber Avenue  
Sherwood Rise  
NOTTINGHAM NG5 1AH  
Tel. 0115 962 5475  
Fax 0115 971 5575  
E-mail east-midlands@open.ac.uk

*Area covered*  
Leicestershire, Lincolnshire, most of Derbyshire, Northamptonshire, Nottinghamshire, Rutland, part of Staffordshire (Burton-on-Trent area)

## East of England Region 06

The Open University in the East of England  
Cintra House  
12 Hills Road  
CAMBRIDGE CB2 1PF  
Tel. 01223 361650  
Fax 01223 355207  
E-mail east-of-england@open.ac.uk

*Area covered*  
Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk, Suffolk

## Yorkshire Region 07

The Open University in Yorkshire  
2 Trevelyan Square  
Boar Lane  
LEEDS LS1 6ED  
Tel. 0113 245 1466  
Fax 0113 234 1862  
E-mail yorkshire@open.ac.uk

*Area covered*  
North, South and West Yorkshire, East Riding of Yorkshire

## North West Region 08

The Open University in the North West  
351 Altrincham Road  
Sharston  
MANCHESTER M22 4UN  
Tel. 0161 998 7007/7478  
Fax 0161 945 3356  
E-mail north-west@open.ac.uk

*Area covered*  
Cheshire, part of Derbyshire, Isle of Man, Lancashire, Greater Manchester, Merseyside

## North Region 09

The Open University in the North  
Eldon House  
Regent Centre  
Gosforth  
NEWCASTLE UPON TYNE  
NE3 3PW  
Tel. 0191 213 1380  
Fax 0191 284 6592  
Minicom 0191 284 8449  
E-mail north@open.ac.uk  
For e-mails from other countries where we register students, please use Europe@open.ac.uk

*Area covered*  
Cumbria, Durham, Northumberland, Teesside, Tyne and Wear, other countries where we register students (but not Ireland), Slovenia, Switzerland

*Resource centre*  
Cumbria (Penrith)  
Tel. 01768 864720  
Fax 01768 864720

## The Open University in Wales Region 10

The Open University in Wales  
24 Cathedral Road  
CARDIFF CF11 9SA  
Tel. 029 2066 5636  
Fax 029 2022 7930  
E-mail Wales@open.ac.uk

*Area covered*  
Wales  
Contact with this office can be in either English or Welsh  
Gallwch gysylltu â'r swyddfa hon yn Gymraeg neu Saesneg

## The Open University in Scotland Region 11

The Open University in Scotland  
10 Drumsheugh Gardens  
EDINBURGH EH3 7QJ  
Tel. 0131 225 2889  
Fax 0131 220 6730  
E-mail Scotland@open.ac.uk

*Area covered*  
Scotland

## The Open University in Ireland Region 12

The Open University in Ireland  
40 University Road  
BELFAST BT7 1SU  
Tel. 028 9032 3722  
Fax 028 9023 0565  
E-mail Ireland@open.ac.uk

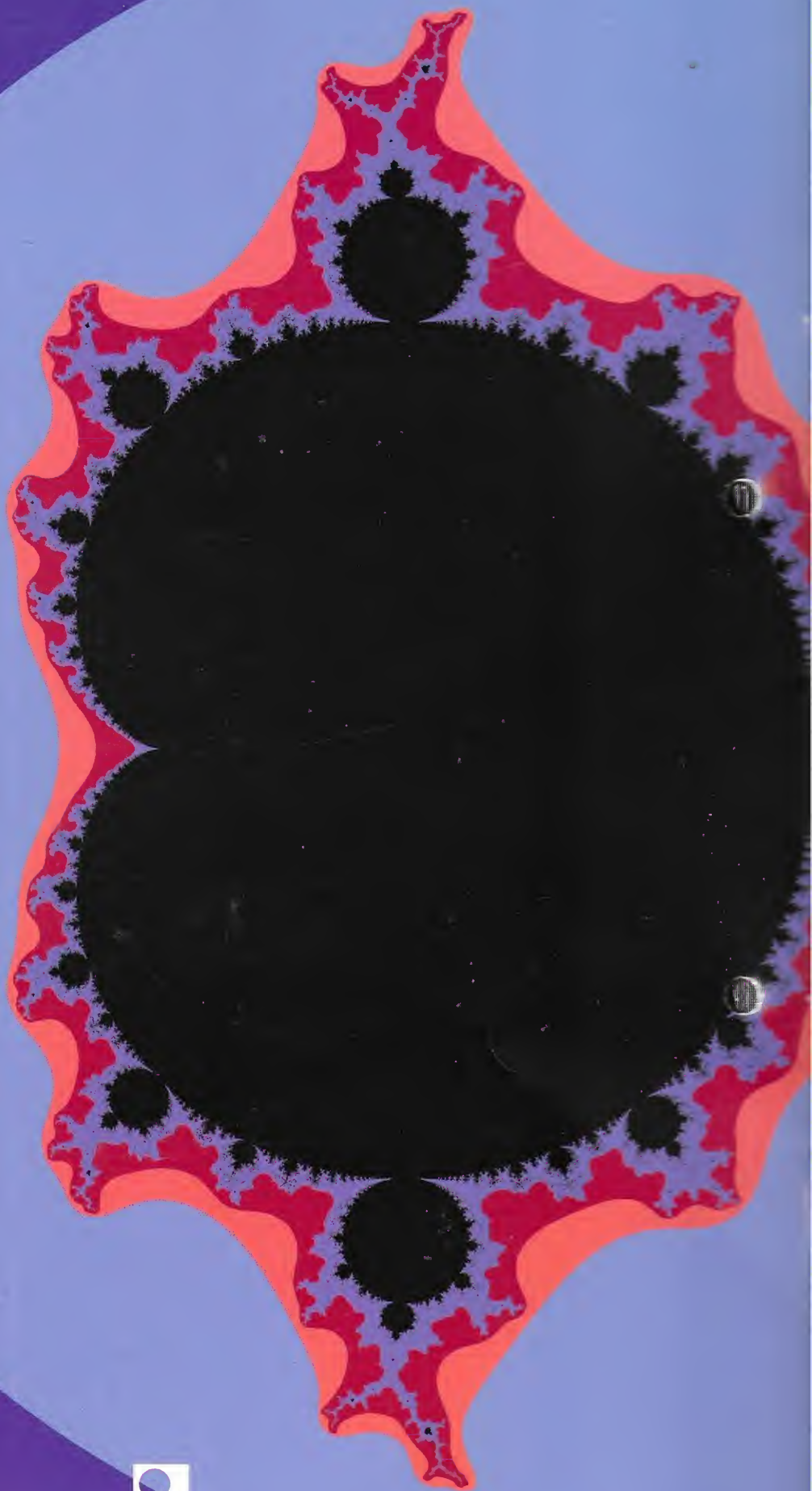
*Area covered*  
Ireland

## South East Region 13

The Open University in the South East  
St James's House  
150 London Road  
EAST GRINSTEAD RH19 1HG  
Tel. 01342 410545  
Fax 01342 317411  
E-mail south-east@open.ac.uk

*Area covered*  
Kent, Surrey, East Sussex, West Sussex





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[www.open.ac.uk](http://www.open.ac.uk)

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